

# Course Outline for Ultrasound use in Brachytherapy

**Code: BRCY**

**Course Title:** Ultrasound in Brachytherapy

**Seminar Description:** An intensive 2 day “hands on” course designed for radiotherapy personnel interested in becoming proficient in ultrasound use in brachytherapy.

The program provides participants with tuition in basic ultrasound physics; ultrasound terminology; sonographic scan planes; annotations and measurements; probe manipulation techniques; and rationale of image based brachytherapy with particular emphasis on cancer of the cervix and cancer of the prostate.

**Course Curriculum:**

- Basic ultrasound physics and instrumentation
- ‘Knobology’ and image optimisation
- Transducer selection
- Probe orientation and manipulation techniques
- Artifact recognition
- Female pelvic anatomy and some pathologies
- Identifying, localising and verifying gynaecological brachytherapy applicators on ultrasound
- Prostate anatomy
- Implant technique for prostate brachytherapy using transrectal ultrasound
- Identifying, localising and verifying catheters and seeds on ultrasound
- Breast anatomy and pathology
- Basic breast ultrasound scanning for boost localization
- Neck anatomy and pathology
- Basic neck ultrasound scanning techniques for node localization and depth measurements

**Course Objectives:**

Upon completion of this course participants will have an understanding of ultrasound physics and instrumentation and rationale of image based brachytherapy for cervix and prostate cancer. Participants will

be proficient in image optimisation and be able to employ ultrasound to guide insertion of brachytherapy applicators.

